

REMARKS/ARGUMENTS

Claims 18-27 are pending.

Claims 24, 18, 20, and 21 were rejected under 35 U.S.C. Section 102 per Uemura (U.S. Pat. No. 6,331,450).

Claims 25-27 were rejected under 35 U.S.C. Section 103 in view of Uemura and Sasaki (JP Appl. No. 2002-9111).

Claims 22 and 23 were rejected under 35 U.S.C. Section 103 in view of Uemura and Kajiwara (U.S. Pat. No. 6,774,466).

Claim 19 was rejected under 35 U.S.C. Section 103 in view of Uemura.

Independent Claim 24

Claim 24 has been amended to include the temperature range limitation of claim 19. As amended, claim 24 recites in part:

- (a) sealing the semiconductor device in a package by surrounding it with thermosetting resin and thermally curing the resin at a first temperature;
- (b) baking the thermosetting resin at a second temperature higher than the first temperature, wherein the second temperature is between about 220°C and about 260°C;

Uemura teaches in column 7, lines 1-11 heating baking resin 230 at 180° C and then removing portions of the resin using a photoresist method. The remaining resin is then baked at 300° C for 30 minutes until it is completely cured.

By contrast, the pending claims explicitly recite second baking step within the temperature range of “220°C and about 260°C.” Uemura clearly does not teach this specific range. Moreover, it would not be obvious from Uemura to perform the second bake at a lowered temperature. Uemura clearly is concerned with baking to achieve a complete cure. As it is, baking at 300° C requires 30 minutes. Baking at a lower temperature would increase the time to achieve a complete cure. Uemura offers no teaching or suggestion that increasing the cure time is at all desirous. Thus, one of ordinary skill in the art would not modify the Uemura process to use a lower temperature for its second baking step.

The examiner cited *In Re Aller* in support of the assertion that it would have been obvious to modify Uemura's second baking temperature, on the ground that the recited temperature range of "220°C and about 260°C" represents an optimum range. As discussed above, however, Uemura teaches the second bake step to "completely cure" the resin. Uemura is totally silent as to any suggestion that a lower bake temperature would improve performance. In fact, a lower bake temperature would require a longer bake time and since any increases in process time is typically avoided, one of ordinary skill in the art attempting to find an optimum range would not consider a downward adjustment in the baking temperature.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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